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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,450	09/29/2000	Jonathan C. Kagle	03797.00006	1290
28319	7590	01/24/2005	EXAMINER	
BANNER & WITCOFF LTD., ATTORNEYS FOR MICROSOFT 1001 G STREET, N.W. ELEVENTH STREET WASHINGTON, DC 20001-4597			MARIAM, DANIEL G	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/672,450

Applicant(s)

KAGLE ET AL.

Examiner

DANIEL G MARIAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-11,13-20 and 22-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11,13-20 and 22-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Amendment

1. In response to the Office Action mailed on June 7, 2004, applicants have submitted an amendment filed on September 7 2004, amending independent claims 1, 10, 19 and canceling claims 3, 12, and 21.

Response to Arguments

2. Applicants' arguments with respect to claims 1-2, 4-11, 13-20 and 22-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 4, 6, 8-11, 13, 15, 17-20, and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Yajima (5,809,176).

With regard to claim 19, Yajima discloses an apparatus (See for example, Figure 1A), comprising: an image sensor that captures a digital image (See col. 10, line 65 through col. 11, line 5); a processor, i.e., data distributor, that divides the captured image into a plurality of image segments, i.e., individual data streams (See col. 11, lines 18-20) and performs image processing, i.e., encoding, on each of the plurality of image segments (See col. 11, line 21 and lines 30-34); and a storage medium, i.e., memory, that stores each of the processed image segments separately as each of the processed image segments arrives at the storage medium (See col. 11, lines 34-38).

Claim 1 is rejected the same as claim 19 except claim 1 is a method claim. Thus,

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argument similar to that presented above for claim 19 is equally applicable to claim 1.

With regard to claim 2, the method according to claim 1, wherein the performing step comprises performing image processing on each of the plurality of image segments in pipeline stages (See for example, Figures 14 & 15).

With regard to claim 4, wherein the performing step is being performed on a first image segment when the storing step is being performed on a second image segment (See for example, Fig. 15).

With regard to claim 6, the method according to claim 1, further comprising: stitching, i.e., combining or integrating, the plurality of image segments together to restore the image after the performing step (See for example, col. 21, lines 44-49).

With regard to claim 8, the method according to claim 2, wherein one of the pipeline stages are divided into at least two parallel processing stages (See Figs. 1A and 14).

With regard to claim 9, wherein the performing step comprises: performing at least a portion of the image processing in at least two parallel image-processing stages (See for example, Fig. 1A).

Claim 10 is rejected the same as claim 1. Thus, argument analogous to that presented above for claim 1 is applicable to claim 10. Yajima further discloses a computer-readable medium having computer-executable instructions stored thereon for performing the steps recited in the claim (See Figs. 1A and 1B).

Claim 11 is rejected the same as claims 2. Thus, argument analogous to that presented above for claim 2 is equally applicable to claim 11.

Claim 13 is rejected the same as claim 4. Thus, argument similar to that presented above

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for claim 4 is equally applicable to claim 13.

Claim 15 is rejected the same as claims 6. Thus, argument analogous to that presented above for claim 6 is equally applicable to claim 15.

Claim 17 is rejected the same as claims 8. Thus, argument analogous to that presented above for claim 8 is equally applicable to claim 17.

Claim 18 is rejected the same as claims 9. Thus, argument analogous to that presented above for claim 9 is equally applicable to claim 18.

Claim 20 is rejected the same as claim 2 except claim 20 is an apparatus claim. Thus, argument similar to that presented above for claim 2 is equally applicable to claim 20.

Claim 22 is rejected the same as claim 6 except claim 22 is an apparatus claim. Thus, argument similar to that presented above for claim 6 is equally applicable to claim 22.

Claim 23 is rejected the same as claim 9 except claim 23 is an apparatus claim. Thus, argument similar to that presented above for claim 9 is equally applicable to claim 23.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 10, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lathrop (6,288,743) in view of Yajima (5,809,176).

With regard to claim 19, Lathrop discloses processing image segments (See for example, Figs. 1 & 2), comprising: an image sensor that captures a digital image (See items 16 and 18, in

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Fig. 1) and col. 8, lines 32-37); a processor that divides the captured image into a plurality of image segments and performs image processing on each of the plurality of image segments (See for example, col. 8, lines 38-44); and a storage medium that stores each of the processed image segments (separately as each of the processed image segments arrives at the storage medium) (See for example, col. 8, lines 45-47). While Lathrop stores each of the processed image segments in a storage medium, Lathrop does not expressly call for storing the processed image segments separately as each of the processed image segments arrives at the storage medium. However, Yajima (See for example, Fig. 1A, where the processed image segments (200-1 to 200-4) stored in memories 18-1 to 18-4 respectively) teaches this feature.

Lathrop and Yajima are combinable because they are from a similar field of endeavor, i.e., image capturing, segmenting, processing the image segments and storing them (See Figs. 1A and 1B). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Yajima with Lathrop. The motivation for doing so is, if for no other reason than to store the processed image segments in sequence or orderly fashion, and to do so would at least increase the efficiency of subsequent processing. Therefore, it would have been obvious to combine Yajima with Lathrop to obtain the invention as specified in claim 19.

Claim 1 is rejected the same as claim 19 except claim 1 is a method claim. Thus, argument similar to that presented above for claim 19 is equally applicable to claim 1.

Claim 10 is rejected the same as claim 1. Thus, argument analogous to that presented above for claim 1 is applicable to claim 10. Lathrop further discloses a computer-readable medium having computer-executable instructions stored thereon for performing the steps recited in the claim (See Fig. 1).

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7. Claims 5, 7, 14, 16 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yajima (5,809,176) in view of Ise, et al. (5,140,647).

With regard to claim 5, Yajima discloses all of the claimed subject matter as already discussed above in paragraph 4, and the arguments are not repeated herein, but are incorporated by reference. Yajima does not expressly call for dividing the image into a plurality of image segments that overlap one another. However, Ise, et al. (col. 4, lines 47-48; and col. 13, lines 24-27) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Ise, et al. into the system of Yajima, if for no other reason than to create image segments or portions that overlay one another, and thereby shortening the time taken for processing.

With regard to claim 7, the method according to claim 6, wherein the stitching step comprises: stitching the plurality of image segments together sequentially following the performing step (See for example, Figs. 3 and 18 of Ise, et al).

Claims 14 and 16 are rejected the same as claims 5 and 7 respectively. Thus, arguments analogous to those presented above for claims 5 and 7 are respectively applicable to claims 14 and 16.

With regard to claim 24, the method according to claim 1, further comprising: storing image file information, wherein the image file information corresponds to the plurality of image segments for a stored image (See for example, item 9, in Fig. 1 of Ise, et al); and updating the image file information that has been affected by the step of performing image processing on any one of the plurality of image segments corresponding to the stored image (See for example, col. 4, lines 35-60 of Ise, et al).

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With regard to claim 25, the method according to claim 24, further comprising:
modifying, i.e., correcting, at least one of the stored plurality of image segments that has been
affected by the step of performing image processing on any one of the plurality of image
segments corresponding to the stored image (See for example, col. 4, lines 35-60 Ise, et al).

Claims 26 and 27 are rejected the same as claims 24 and 25 respectively. Thus,
arguments analogous to those presented above for claims 24 and 25 are respectively applicable to
claims 26 and 27.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this
Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).
Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within TWO
MONTHS of the mailing date of this final action and the advisory action is not mailed until after
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,
however, will the statutory period for reply expire later than SIX MONTHS from the date of this
final action.

9. Any inquiry concerning this communication or earlier communications from the
examiner should be directed to DANIEL G MARIAM whose telephone number is 703-305-
4010. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LEO BOUDREAU can be reached on 703-305-4607. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL MIRIAM
PRIMARY EXAMINER

January 7, 2005